

CHAIN-OF-CUSTODY DATA FOR SOIL, FOODSTUFFS, AND BIOTA SAMPLES

Purpose This Meteorology and Air Quality Group (MAQ) procedure describes how to create chain of custody forms before sample collection, how to record field data from the forms into the database after sample collection and processing, and how to record sample analyses requests and shipping information in the SFB database.

Scope This procedure applies to personnel assigned to collect soil, foodstuffs, and biota samples for the SFB program in MAQ.

In this procedure This procedure addresses the following major topics:

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Users are responsible for ensuring they work to the latest approved revision.

General information about this procedure

Attachments This procedure has the following attachments:

Number	Attachment Title	No. of pages
1	Using the SFB Database	1

History of revision

This table lists the revision history and effective dates of this procedure.

Revision	Date	Description Of Changes
0	12/96	New criteria (Safety Concerns)
1	3/99	Reformatted in accordance with LIR300-00-01, Safe Work Practices
2	4/01	Added new Section 9.0, Training
3	4/02	Change in directorate.
4	4/03	Team name change to Environmental Surveillance; issued as RRES-ECO-SF-HCP/OP-008, R4.
5	10/03/05	Revised to reflect new database system for issuing forms.

Who requires training to this procedure?

The following personnel require training before implementing this procedure:

- MAQ personnel assigned to collect samples for the FSB program

Training method

The training method for this procedure is **read-only** (self-study) training and is documented in accordance with the procedure for training (MAQ-024).

Definitions specific to this procedure

None.

References

The following documents are referenced in this procedure:

- MAQ-024, "Personnel Training"
- MAQ-706, "Processing and Submitting Samples for the Foodstuffs Monitoring Program"

Printing c-of-c forms before sample collection

Background The Soils, Foodstuffs, and Biota (SFB) database tracks most aspects of sample and data management for the SFB program, including sample collection, sample tracking, sample shipping, sample tracking, data uploading, data verification and validation, etc. This procedure describes the use of the database to generate chain-of-custody forms, record sample compositing information, and enter sample shipment information.

Generate c-of-c forms Before traveling to collect SFB samples, follow the steps in the left column of the flowchart (Attachment 1) to generate the c-of-c forms.

Use of c-of-c forms and labels in the field Each c-of-c form will be uniquely numbered and will have a sequential field number (1 thru 10) in the far right column. Use the labels to identify the samples as they are collected – do not enter anything in the left column (USI number) when in the field.

Recording c-of-c data after sample processing

Background After processing and compositing samples in the laboratory (see MAQ-706), the data entered on the c-of-c form must be entered into the database. This process also indicates which field samples were composited into a single sample for laboratory analysis.

Enter field and compositing data Follow the steps in the middle column of the flowchart (attachment 1) to enter c-of-c data from the forms. The database will assign a USI (unique sample identifier) that must be written in the left column of the c-of-c. If two or more field samples were composited into a single analytical sample, enter this USI number on all lines corresponding to each field sample that was composited.

Recording shipping of samples

Background

After entering all information about field collection, processing, and compositing, the samples are ready to be shipped to the analytical laboratory. For each analyte requested for each sample, the database will assign a unique result identifier (URI) that will later be correlated with the laboratory analytical results.

Enter shipping information

Follow the steps in the right column of the flowchart (attachment 1) to record the analyses requested for each sample.

Important points to check

Before clicking “Assign Analysis Request to Samples”, double-check that the samples to be shipped exactly match the samples packed in the coolers. If the samples do not match, chain-of-custody may be broken.

If discrepancies are found after clicking, contact the database administrator to make changes in the database – do not attempt to edit the tables manually.

If chain-of-custody is broken

Whenever there is a break in the chain of custody of a sample, document the failure by initiating a deficiency report in accordance with the procedure for deficiencies (MAQ-026). [The deficiency process will document the occurrence, evaluate the potential impact (if any) on the samples, and propose a fix to prevent recurrence.]

Records resulting from this procedure

Records

The following records generated as a result of this procedure are to be filed with the data package for the analytical work:

- chain-of-custody forms generated by SFB database
- URI report generated by SFB database

[Click here to record “self-study” training to this procedure.](#)

USING THE SFB DATABASE TO RECORD CHAIN-OF-CUSTODY

